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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,014	12/19/2001	Holger Janssen	1882	3598

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EXAMINER
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SENF, BEHROOZ M

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/025,014	<b>Applicant(s)</b> JANSSEN, HOLGER	
	<b>Examiner</b> Behrooz Senfi	<b>Art Unit</b> 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 26-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments, filed 3/17/2006 have been fully considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 26 – 28, 30 – 31 and 45 - 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heimann et al (US 5,948,042) in view of Endo et al (US 2002/0094825).

Regarding claim 26, Heimann '042 teaches, "a method of producing road or street section data for a digital map" (i.e. fig. 1) comprising, "providing a vehicle with an image producing device and position determining device" (i.e. vehicle 11 with video camera, col. 4, lines 38 – 39 and GPS) and "means for generating image data of surroundings of the vehicle and position determining device, means for generating position of the vehicle" (i.e. abstract, col. 6, lines 25+, col. 2, lines 55 – 60) and "driving the vehicle over at least one road" (i.e. abstract, lines 12 - 13), and "during the driving of the vehicle, simultaneously collecting image data with the image producing device" (i.e. col. 6, lines 27 - 65) and "analyzing the image data with an image processing means to

Art Unit: 2621

put together or assemble a road or street section description (fig. 1, traffic computer and processor, col. 6, lines 26 – 37) and “correlating the vehicle position data and the road or street section description with a correlation means .....” reads on GPS to determine the actual position of the vehicle for updating the digital map (col. 5, lines 23 – 35).

Heimann '042 teaches, the use of the camera which is installed in a vehicle for taking images and registering the traffic signs (lane guidance) arranged on a road sections and crossings and junctions, by evaluating the image data. But is silent in regards to image data includes “at least one of cycle lane information, lane quality information and building information”.

However such features are well known and used in the prior art of the record as evidenced by Endo (page 5, paragraph 0060) where teaches image information indicating the road surface condition (like; icy or wetting on the road surface).

Taking the combined teaching of Heimann and Endo as a whole, it would have been obvious to one skilled in the art at the time of the invention was made to improve the image analyzing system of Heimann, by more particularly analyzing the collected information from the image to determine the condition of the road surface to provide such road environment information to a user as suggested by Endo (page 5, paragraph 0059). In view of the above, based on the alternative claim language the reference, Endo meets one of the alternatives as claimed.

Regarding claim 27, combination of Heimann and Endo teaches “vehicle absolute position and orientation” (GPS, col. 5, lines 23 – 36 of Heimann).

Regarding claim 28, GPS inherently utilizes a coordinate system and information collected from GPS is used to point to location of vehicle relative to digital map, therefore the GPS coordinate system is coincidence with the digital map, as discussed in claim 27.

Regarding claim 30, combination of Heimann and Endo teaches, "comparing the road or street section data with pre-existing road or street data and updating ....." (i.e. col. 3, lines 18 – 20, and col. 6, lines 1 – 3 of Heimann).

Regarding claim 31, combination of Heimann and Endo teaches, "transmitting the data ..... and exchange of information" (i.e. fig. 2, data transmission section of Heimann, and fig. 1, element 20 – 22 of Endo).

Regarding claims 45 - 46, combination of Heimann and Endo teaches, "image producing device comprises at least one camera" (col. 4, lines 37 – 38 of Heimann).

Regarding claim 47, Examiner takes Official Notice, to note that, the use of "stereoscopic image-generating device (camera)" is notoriously well known in the prior art of the record for generating stereoscopic image. Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to implement such teaching to generate panoramic image.

4. Claims 29 and 32 – 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heimann '042 in view of Endo '825 further in view of Kawai et al (US 6,577,334).

Regarding claim 32, combination of Heimann and Endo teaches, "a method of producing road or street section data for a digital map and providing a vehicle with an

Art Unit: 2621

image producing device, and generating image data of surroundings of the vehicle and position determining device for generating position of the vehicle and analyzing the image data, including at least one of cycle lane information, lane quality information and building information and correlating the vehicle position data” as discussed with respect to claim 26 above.

Heimann '042 is silent in regards to explicitly mention “course of at least one road or street section relative to the vehicle .....”. However such features are well known and used in the prior art of the record as evidenced by Kawai '334 (figs. 9, 11a - 12c and 22). Therefore, taking the combined teaching of Heimann and Kawai as a whole, it would have been obvious to one skilled in the art at the time of the invention was made to improve the image analyzing system of Heimann, by more particularly analyzing the collected information from the image to determine the vehicle position as suggested by Kawai.

Regarding claim 33, combination of Heimann, Endo and Kawai teaches “vehicle absolute position and orientation” (GPS, col. 5, lines 23 – 36 of Heimann, and col. 6, lines 60 – 65 of Kawai).

Regarding claim 34, GPS inherently utilizes a coordinate system and information collected from GPS is used to point to location of vehicle relative to digital map, therefore the GPS coordinate system is coincidence with the digital map, as discussed in claim 27.

Regarding claim 35, the limitations claimed have been analyzed and rejected with respect to claim 32 above.

Regarding claims 36 and 29, the limitation “wherein the road or street section data includes a statement regarding a course of at least one road or street section in relation to the fixed first coordinate system” (col. 5, lines 39 – 54 of Kawai).

Regarding claim 37, combination of Heimann, Endo and Kawai teaches, “comparing the road or street section data with pre-existing road or street data and updating .....” (i.e. col. 3, lines 18 – 20, and col. 6, lines 1 – 3 of Heimann).

Regarding claim 38, combination of Heimann, Endo and Kawai teaches, “transmitting the data ..... ” (i.e. fig. 2, data transmission section of Heimann, and fig. 1, element 20 – 22 of Endo).

Regarding claims 39 - 40, combination of Heimann, Endo and Kawai teaches, “image producing device comprises at least one camera” (col. 4, lines 37 – 38 of Heimann).

Regarding claim 41, Examiner takes Official Notice, to note that, the use of “stereoscopic image-generating device (camera)” is notoriously well known in the prior art of the record for generating stereoscopic image. Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to implement such teaching to generate panoramic image.

Regarding claim 42 the limitations claimed are substantially similar to claim 32, therefore the ground for rejecting claim 32 also applies here. As for additional limitation, “comparing the road or street section data with pre-existing road or street data .....” please see (col. 3, lines 18 – 20, and col. 6, lines 1 – 3 of Heimann).

Regarding claim 43, combination of Heimann, Endo and Kawai teaches “communication means .....” (i.e. fig. 2, data transmission section and exchange of information” (i.e. col. 1, lines 20 – 22 of Heimann).

Regarding claim 44, the limitation “interface device for supplying the vehicle position data and road or street section information obtained from the image data” would have been implied and necessitated by the traffic processor 20 of Heimann and also communication and broadcasting of Endo, for communication with other devices.

### **Conclusion**

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### **Contact**

6. Any inquiry concerning this communication or earlier communications



Art Unit: 2621

from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(571) 272-7339**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mehrdad Dastouri** can be reached on **(571) 272-7418**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**Or faxed to:**

**(571) 273-8300**

Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, Va. 22314.

Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is **(571) 272-6000**.

B. M. S.

*Mehrdad Dastouri*  
**MEHRDAD DASTOURI**  
**SUPERVISORY PATENT EXAMINER**  
*TC 2600*